Ehsan Al-Agtash

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EDUCATION

Bachelor Of Science in Mechanical Engineering

San Jose State University, San Jose, CA,

Relevant Course Work: Mechatronics, Heat Transfer, Thermodynamics, Robotics, Mechanical engineer design, Dynamic System Vibration Control, Manufacturing process, Fluid Mechanics

SKILLS

Software: SolidWorks, Circuit Python, Visual Studio Code, Microsoft Office Suite, ArduinoIDE, GD&T

Programming Languages: C++, Python, MATLAB, LabVIEW, Simulink, Java

Test Equipment: Pneumatic pressure and flow, high/low-frequency AC, DC, shop tools, Instron fatigue and tensile

EXPERIENCE

Supira Medical, Los Gatos — R&D intern

May 2022 - Aug 2022

Expected Graduation: Dec 2022

- Designed and built fixtures for the operations team increasing manufacturing reliability by 20%
- 3D modeled impeller trimming fixture with high precision and tight tolerance using SolidWorks
- Collaborated with operators to test and develop a 360-degree UV curing station to help with consistent glue bonding throughout manufacturing
- Designed Arduino-powered 2-axis automated coiler to drive catheter for lamination, increased manufacturing by 13%

Spartan Racing Combustion Team Formula SAE, SJSU — Team member Aug 2020 - June 2022

- Researched different exhaust systems to aid in designing an optimum flow exhaust system
- Increased productivity by 15% within the team and helped manufacture different brackets
- Communicated consistently between 5 sub-teams to finish tasks and succeeded within a team environment

PROJECT EXPERIENCE

Drag Reduction System (DRS), SJSU — Team member

Jan 2021 - May 2022

- Constructed an analysis of multiple actuators (electric, hydraulic, pneumatic) to energize the DRS system while following SAE rules, Team goals while minimizing the extra weight.
- Evaluated different actuation methods and picked the most suitable actuator to energize the DRS
- Brainstormed the effectiveness of the DRS and how it will help reduce lap time

Automatic Window Opener, SJSU — Team lead

Jan 2021 - May 2021

- Attained a stepper motor for the application based on velocity, current, torque, and voltage
- Established communications between sensors and motors using Python (nRF)
- Optimized the parameters with a state diagram for the Adafruit sensors to ease the design and the structure of the program
- Analyzed software structure for sensors and motors with Circuit Python and practiced good programming